

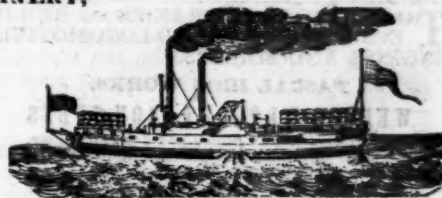
AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,

AND MINES.



ESTABLISHED 1831.



PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I, No. 11.]

THURSDAY, MARCH 13, 1845.

[Whole No. 454. VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

ENGINEERS and MACHINISTS.

STILLMAN, ALLEN & Co. N. Y.
JAS. P. ALLAIRE, N. Y.
H. R. DUNHAM & Co. N. Y.
WEST POINT FOUNDRY, N. Y.
PHENIX FOUNDRY, N. Y.
R. HOE & Co. N. Y.
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)
ANDREW MENEELY, West Troy. (See Adv.)
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
NORRIS, BROTHERS, Philadelphia, Pa.
KITE'S Patent Safety Beam. (See Adv.)
FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]
BALDWIN & WHITNEY, Philadelphia, Pa.
JOHN F. STARR, Philadelphia, Pa.
MERRICK & TOWNE, do.
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]
ROSS WINANS, Baltimore, Md.
CYRUS ALGER & CO., South Boston Iron Company.
SETH ADAMS, Engineer, South Boston, Mass.
HINCKLEY & DRURY, Boston.
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

THE RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

RAILWAY IRON, LOCOMOTIVES, ETC. The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.	lbs. per ft.
350 tons 2 by 15 feet in length weighing	4.68
280 " 2 " " " "	3.50
70 " 1 1/2 " " " "	2 1/2
80 " 1 1/4 " " " "	1.26
90 " 1 " " " "	1

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed. Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 51 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 2 3/4, 3, 3 1/4, 3 1/2, 3 3/4, and 3 1/2 inches diameter.

Chains for inclined planes, shot and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also, Patent hemp cordage for inclined planes and canal towing lines.

Patent felt for planing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO.,
No. 4 South Front st., Philad., Pa.

MACHINE WORKS OF ROGERS, KETCHUM & Grosvenor, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
a45 Paterson, N. J., or 60 Wall street, N. York.

TO IRON MANUFACTURERS. THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

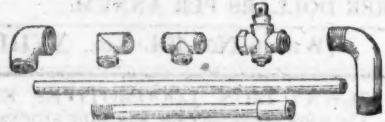
A. & G. RALSTON & CO.,
ja15 No. 4 South Front st., Philadelphia, Pa.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

TO IRON MASTERS.—FOR SALE.—MILLSITES in the immediate neighborhood of *Birmingham Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer*,

VALUABLE PROPERTY ON THE MILL DAM FOR SALE. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 63,497 square feet, with the following buildings thereon standing:

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 85x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 feet two stories high, with a shed part 45x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.

ja15

FRENCH AND BAIRDS PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arrester have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore used to the public. The form is such that a rotary motion is imparted to the heated smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

*. The letters in the figures refer to the article given in the *Journal* of June, 1844.

ja15

S. VAIL, PROPRIETOR OF THE SPEED. well Iron Works, near Morristown, N. J., can supply at short notice railroad companies and others with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, a large quantity in the straight bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron. Straight axles for locomotives for outside connection engines. Frames for engines. Wrought iron work for steamboats, and shafting of any size. Cotton Screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail & Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Camfield, Savannah, Ga.; J. & S. Bones, Augusta, Ga.; D. F. Guez, N. Orleans, La.; Adam Hall, N. York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, N. York.

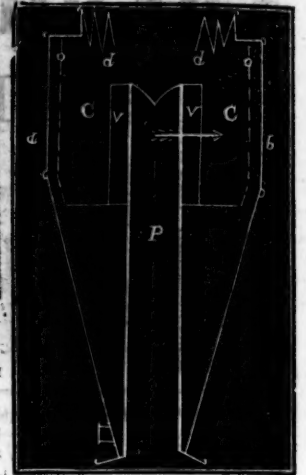
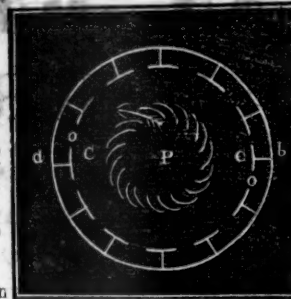
ja15

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,

ja15 President of the Newcastle Manuf. Co.



CUSHMAN'S COMPOUND IRON RAILS, etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer*,
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

ja15

G. A. NICOLLS,
Reading, Pa.

FIRST ANNUAL REPORT OF THE BOSTON AND MAINE RAILROAD EXTENSION COMPANY.

In conformity with the act of incorporation the stock has been fully subscribed for; and the company was duly organized by the choice of directors. The survey and location were commenced in May, and the contracts for the graduation, masonry and superstructure concluded. The road commences at a point on the Boston and Maine Railroad in Wilmington, three-fourths of a mile east of Lubber Brook, passes near Wood-end village in Reading, through the westerly part of the village of South Reading, North Malden and Malden—thence over the marshes and across the Mystic river to Somerville—thence over the Middlesex Canal, crossing Charlestown Neck under the Medford turnpike road and the Winter Hill road—thence over the marshes to the Back Bay in Charlestown—thence by a bridge west of the State Prison and across Charles River to Boston—thence between Haverhill and Canal streets to the public square at the head of those streets. The entire length of the railroad is 17½ miles. Four miles of the track are laid, and the remainder of the road will be ready for the superstructure as soon as the season opens sufficiently in the spring to permit the laying of the rails.

The total amount of capital paid in up to December 1, 1844, was \$428,225 00
Other receipts, \$129 76

Total, \$428,354 76

The expenditures up to December 1, 1844, have been as follows:

Engineering, \$5,421 71
Land and land damage, 223,062 40
Bridges from Boston to Somerville, and over the Middlesex Canal and Mystic River 92,543 98
Graduation, 38,907 76
Fencing, 3,953 51
Rails, chairs, &c., 88,750 84
Sleepers, 1,870 02
Balance of interest, 275 35
Miscellaneous expenses, 917 07

Total, \$455,702 64

THIRTEENTH ANNUAL REPORT OF THE BOSTON AND PROVIDENCE RAILROAD CORPORATION.

The business of the road during the past year has yielded a considerable increase, in each branch of trade, compared with the three preceding years, without involving any increase in the expenditures, and future prospects in regard to receipts and expenditures are encouraging. The increase of receipts was principally derived from what is termed the local business of the road.

The Long Island Railroad, connecting the city of New York and Greenport, was open for travel in August last, and, in connection with the New England railroads terminating on Long Island Sound, affords a new line of communication between Boston and New York. It was deemed due to the public convenience to make such a connection with the Long Island and Stonington Railroads as should render this line useful, by a prompt and uninterrupted passage between the two cities. Thus far, it has not commanded sufficient travel to remunerate this company for the expense incurred.

The trade on the Dedham Branch Railroad has continued to be satisfactory, and during the last summer warranted an increase in the number of trains. The passenger house, at the depot in Dedham, was enlarged last fall, to meet the wants of an increasing amount of travel.

In anticipation of the opening of the Stoughton Branch Railroad, which enters this road in

Canton, fourteen miles from Boston, we have entered into an arrangement with that corporation in regard to operating the Branch Railroad, and the tolls for the use of the main road, which we do not doubt will prove advantageous to both parties. For the accommodation of the business of this branch road, we have constructed an engine house at the junction of the Dedham Branch with the main road, and a store house in Boston.

Preparations for the extension of a second track, from Roxbury to the Dedham Branch junction, a distance of eight and a half miles, have been made, and it is expected that it will be completed in May next. This portion of the road is more curved than any other, and being traversed by the Dedham trains in addition to those which run over the whole length of the road, requires the facilities and safety which a double track affords, to prevent accidents and detentions.

During the past year the residue of the sleepers originally laid down have been replaced by new ones. The average duration of the sleepers, which were principally of white cedar, has been between seven and eight years.

As the durability of the iron rail has been a source of much speculation, we have taken pains to ascertain particularly the state of the rails on this road, and while they exhibit evidence of wear and tear arising from the action of the trains, we are happy to say that their general condition, taken in connection with the amount of renewals since the road was opened for travel in 1834, warrants the conclusion, that this important item of construction will never become one of serious expenditure; that a small annual appropriation will maintain the rails in good condition for all time; this opinion is sustained by the fact that in ten years of use to which the rails have been subjected, only 750 new rails, (about 2½ per cent of the whole number), have been put into the track; a large proportion of this number were originally of inferior quality when laid down.

The cars and engines are in the same condition as at the date of our last report, with exception of a small addition to the former.

On the 31st ultimo we made a careful estimate of the present value of the cars, engines, and other personal property of the corporation, which had been charged to the account of construction, and have charged against such depreciation from the cost to income account, the sum of forty thousand dollars, and deducted the same from the cost of construction.

The amount of capital paid in is \$1,860,000 00
The amount expended on account of construction during the past year, \$11,660 78

Amount previously charged, including second track from Boston to Roxbury, and Seekonk Branch, 1,914,473 80
\$1,926,134 58

Deduct amount charged against depreciation of cars, engines and other personal property, from Jan. 1st, 1834, to Dec. 31st, 1844, 40,000 00

Present amount of construction account, \$1,886,134 58

Income of the past year.

From Passengers,—
Main Road, \$139,265 72

Taunton Branch, 32,012 27
Dedham " 18,379 52
\$189,657 51

From Merchandise,—
Main road, 74,955 46
Taunton Branch, 11,345 79
Dedham Branch, 999 96
87,301 21

For transportation of mails, after deducting expense of carrying to and from post offices, 6,051 44
For rents, interest, &c., 691 02

\$283,701 18

Expenditures during the year, exclusive of the amount charged to construction account, as before stated.

Repairs of railroad, including bridges, \$18,944 73
Do. cars and engines, 19,969 17
Salaries, fuel, oil, and miscellaneous expenses, 62,702 66
Ferry at Providence to connect with Stonington Railroad, 6,400 00
Rent paid Boston and Providence Railroad and Transportation Company in Rhode Island, for lease of their road, bridge and depot, 5,818 18
113,834 74

Net earnings, \$169,866 44

Amount standing to the credit of Income Account, Dec. 31, 1844, \$156,108 62

The amount of dividends during the year, 3 per cent. in January, \$55,800
Do. in July, 55,800
111,600 00

Amount of depreciation on cars, engines, &c., as above stated, 40,000 00

Present amount of Income Account, say on Jan. 1, 1845, 116,108 62

The number of miles run by the Locomotives during the past year.

Passenger trains, 102,764
Merchandise do., 29,400
Gravel do., 5,328

Total miles, 137,492

NINTH ANNUAL REPORT OF THE CHARLESTOWN BRANCH RAILROAD.

The amount of capital stock paid in, is \$250,000 00

Amount expended at the date of the last Annual Report, \$4,019 60

The amount expended during the past year, and charged to the cost of the road, is

For construction of road and bridges, \$9,299 74
" land and land damages, 12,038 93
" road furniture, 3,703 81
" buildings, 1,167 64
26,210 12

Total cost of road and appurtenance, \$280,259 72

The receipts of the road for the past year, are

For transportation of passengers,	
\$7,787 63	
" transportation of mer-	
chandise,	26,144 05
" rent and miscellanies,	1,521 65
	\$35,453 33
Less discount on freight,	799 43

\$34,653 90

The expenditures of the road the past year, are	
For repairs of road,	\$1,545 16
" repairs of engine and	
cars,	2,471 85
" fuel, oil, salaries, wa-	
ges, and miscellaneous	
expenses,	16,666 09

\$20,683 10

The number of miles run by locomotive engines	
during the year, is	
With passenger trains	8,771
" passenger and merchan-	
dise together,	11,270
" merchandise trains,	5,930
" miscellaneous,	1,945
Total,	27,926

Two dividends of profits have been made: one of three per cent., and one of two and one half per cent. on the capital stock.

Thirty-five thousand one hundred and ninety-one tons of ice were transported over the road in the year 1843, and forty-one thousand eight hundred and thirty-eight tons have been transported the past year.

The manufacture of bricks on the line of the road, has been commenced on an extensive scale, affording us a new item of freight, which promises a large increase.

NINTH ANNUAL REPORT OF THE EASTERN RAILROAD COMPANY.

The total expenditures for the construction of the road, its engines and cars, and property remaining on hand Dec. 31, 1843, was

\$2,388,631 33

During the year 1844 has been added

17,753 19

Total Dec. 31, 1844, \$2,406,384 52

A part of the property, valued at \$23,529 50

has been disposed of this year, and additions and improvements made at the cost of

5,189 46

Diminishing the above expenditure

18,340 04

And leaving it Dec. 31, 1844, \$2,388,044 48

The receipts have been from capital stock, 18,000 shares at \$100, \$1,800,000

Loan of State scrip, due in 1857,

500,000

Due reserved fund and other accounts,

88,044 48

\$2,388,044 48

The current receipts and expenditures arising out of the business, and showing the net earnings of the road for the year 1844, together with income from all other sources, and the appropriation thereof, are shown in the following tabular statement:

Receipts from passengers,	\$293,762 32
Do. merchandise transportation,	33,194 84
Do. from mail,	10,068 50
Do. incidental,	212 80

Total, \$237,238 46

Expenses for repairs of road,	19,176 00
Do. engines and cars,	15,938 80
Do. for oil for engines,	1,556 61
Do. do. cars,	705 72
Do. for fuel for engines,	19,039 47
Do. for miscellaneous—all other,	52,902 26

Total, \$109,318 86

Net earnings,	\$227,919 60
Net income from property, rents, &c.,	6,661 14

\$234,580 74

Interest on State scrip,	25,000 00
--------------------------	-----------

\$209,580 74

Dividend of profits to June 30, 1844, 3½ per cent.

Eastern Railroad, 18,000 shares, \$63,000 00

Eastern Railroad in N. H., 4825 shares,

16,887 50

Dividend of profits to Dec. 31, 1844, 4 per cent.

Eastern Railroad, 18,000 shares, \$72,000 00

Eastern Railroad in N. H., 4825 shares,

19,300 00

91,300 00 171,187 50

\$38,393 24

Balance of profit and loss account by amount sales of property over valuation,	\$9,344 57
--	------------

\$47,737 81

Surplus Dec. 31, 1843,

39,310 30

Surplus Dec. 31, 1844,

\$87,048 11

Number of miles run,

204,962

Do. passengers,

544,994

Expense per mile,

53 ³⁴¹/₁₀₀₀ cts.

Interest on cost of the road to the stockholders from the payment of their assessments to the 31st Dec., 1844, amounts to 41 ¹⁸⁴/₁₀₀₀ per cent. They have received in dividends, 38 ⁴⁸²/₁₀₀₀ per ct.

The reduction of the freight on Coal on the Pennsylvania Canals will, it is supposed, enable Pittsburg to supply Philadelphia with bituminous coal. The cost of the transportation will be about \$3 09 per ton.

This is "coming it rather strong." To carry coal 400 miles with several changes from canal to railways, besides crossing the Alleghany mountains, for ¾ of a cent per ton per mile, is something new under the sun.

Iron Freight Barges.—There have recently been built at the Archimedes works, foot of Thirty-third street, six iron barges, which are to form a daily line on the Hudson, between New York and Troy. They belong to the highly respectable house of Ide, Coit & Co. of Troy, and were planned by one of the partners. They are of 250 tons burthen, 100 feet long on the keel, 17½ feet beam, and 7 feet hold, with a guard of 2½ feet all round, and the arrangements in all respects such as to afford the best possible accommodations. The owners think there is a chance that the Erie Canal will be enlarged throughout during the lifetime of

these boats, and have had them so constructed as to fit the enlargement, with no other alteration than taking off the guards.—*Journal of Commerce.*

The New Packet Steamer Decatur.—We yesterday examined this new vessel. She was launched, a short time since, from the yard of Currier & Townsend, by whom the hull was built. She now lies at the wharf of Messrs John Wood & Son, by whom, together with John Porter, Esq., she is owned. She is to be propelled by "Bard's Patent Propellor,"—that is, *two submerged paddles, revolving upon two cylinders of iron, just by the stern post, one on each side*—the cylinders pass into the vessel, and connect inside with the engine. Outside, therefore, the only machinery which is to be found, is the two paddles, and the two shafts or cylinders to which they are annexed; and these submerged, and close to the vessel, under the run. Mr. Bard, the patentee of these double propellers, is now a resident of Boston, we are informed, and formerly of Maine. His plan is said to be a great improvement on that of Hunter, and others. The iron work, engine and boiler, are all made, and to be put into working order, by Seth Adams & Co., of South Boston.

Besides the "Propellers," there will be fore and aft sails, rigged upon two masts, schooner fashion. There will be neither topsail nor bowsprit. The length of the Decatur is, on deck, 105 feet, with 22 feet beam. She is a handsome model, with clean run good bows, and flush decks, about 145 tons.

Yesterday, they were just getting the boiler on board. It is a huge, iron, cylindrical chest, with furnace attached—massively fastened with clamps, rivets and bands, and weighs about ten tons.

This steamer is to ply, as a regular packet, between this port and Boston; and is to be handsomely fitted for passengers, as well as properly arranged for the carriage of freight.—*Newburyport Herald.*

FOREIGN EXTRACTS.

The Iron Trade, Railways and Ship Building.—It gives us sincere satisfaction to lay before our readers a flattering account of the iron trade. Never do we remember a period when its prospects were brighter, or its improvement more decided. Our information from all quarters is gratifying, that from the north more particularly so. In Durham it value has been materially enhanced, and the trade in Newcastle has received such an impulse, as to warrant us in holding out most sanguine hopes, both to owners of property, consumers and the mining operative population. And here let us observe, that we are not easily captivated by a temporary fluctuation, nor deluded by an unsteady nervous improvement, which might speedily relapse into dulness, if not depression; but it is after a calm and anxious review of the trade that we deliberately express our conviction that the present improvement is based on solid grounds, and likely to be steady and progressive. This we consider mainly attributable to the

extended adoption of railways; and the impetus which this system has given to the department in question is not confined to the home, but has had its effects on the export trade also. Thus, while the consumption of iron, to furnish new rails, carriages, engines, etc., for this country, has created a large demand in the market, and, to all appearances, that demand must increase considerably for some years at least; the development of the locomotive system abroad has so raised the value of our trade with Germany, France and America, that notwithstanding the prohibitory duties in those countries, our export trade in this metal bears an increase for the last over the preceding year of more than 80,000 tons, or in money upwards of half a million sterling.

But, independent of the favorable influence produced by railways, there is another, and equally important circumstance, which considerably affects the trade. We allude to the consumption of iron for the purposes of ship-building. The vast advantages arising from vessels being thus constructed, as regards speed, safety and economy, have been so indisputably established, that a general, if not exclusive adoption of the principle, not only for steamers, but also for sailing vessels, may be fairly anticipated. Here, then, will be a constant enormous demand for iron, which, if our mines are able to supply, will afford a high and profitable market.

With these prospects before us, we are not over sanguine in expecting a steady improvement in every branch of this industrial department.

In reference to the above subject, we may here acknowledge the receipt of a treatise, illustrating and explaining the improved forms of iron as applicable to ship-building, by the patenters, Messrs. Kennedy and Vernon, of Liverpool. The improvement they propose is simple, and likely before long to be universally adopted; its nature will be best understood by giving the words of the inventors, "Iron ship-building has made much progress in this country, but it is still capable of great improvement; and to effect this in two most essential points, we have directed our attention, by the assistance of practical observation and experience. Although we do not pretend to say that the vessels hitherto constructed are in any danger, from the adoption of iron of the common form for deck beams and side frames, we consider that the forms we have invented, and for which we have taken out a patent, effect the object of uniting the maximum of strength with the minimum of weight in the highest degree. There is no part of a ship to which strength is of more consequence than in deck beams and side frames; they are the bonds which keep it together, and if they remain firm there is no danger to any part of the vessel, built of proper materials and scientifically constructed. We have already used the patent iron in several steam vessels we have lately built, and are satisfied of its superiority over every other shape of iron hitherto in use. Heretofore, iron vessels have generally been constructed with angle iron, usually employed for the ribs of vessels, and also by uniting one or

two pieces of this angle iron with a plain bar of iron, and sometimes with rolled iron. Both these systems, it is well known, are not so strong as a bar of iron, having ribs or flanges on both the top and bottom edge."

The importance of this application to ship building must be manifest at one view, by placing the greatest quantity of iron in the weakest parts, which thus with a trifling addition of weight, affords tenfold stability and strength.—*Mining Journal*.

STATISTICS OF RAILWAY TRAFFIC.

Returns for the year 1844. Prepared by Mr. J. T. Hackett, for "*Herapath's Journal*."

Number of passengers carried 19,579,191. Receipts from passengers and parcels, £4,136,681, from merchandize cattle, etc., £1,448,301. Total receipts for 1844, £5,584,982, for 1843, £4,827,655, for 1842, £4,341,781.

"The above table contains the aggregate railway returns of those lines which are to be found in the official returns given in this Journal during the last year. The capital expended in the construction of those lines, as per last report, was £61,489,056, and the traffic returns for the past year, amounted to £5,584,982, from which is to be deducted 40 per cent. for working expenses: £2,233,990, £196,500 for passenger duty; and £157,724 for property tax, which will leave a sum, clear of income tax, amounting to £2,996,778, for distribution among the shareholders and would pay a dividend on the cost, of 4.87 per cent. for the year. It must be borne in mind that some of the traffic returns range only from three to five months, on the new lines opened during the year, amounting to about 180 miles, and that the Brandling Junction railway, having no returns for about three months making in all partial returns only upon rather more than 200 miles of railway, while the capital mentioned above includes the whole sum expended on the 1805 miles. These matters taken into account, together with the deduction made above for property tax, the railways referred to may be safely assumed as having paid on the whole, rather more than 5 per cent. for the past year.

"The capital expended in 1844 on 1805 miles of railway was £61,489,056; in 1843, on 1,586 miles £56,135,104, and in 1842, on 1,520 miles, £51,180,000, which gives an average cost per mile in 1844, of £34,066; in 1843, of £35,394; 1842, of £33,671. It would appear also that the sum expended on railways in Great Britain between certain periods in 1842 and 1843 was £4,955,104, and between 1843 and 1844, £5,353,952, which must have had a beneficial effect upon the trade of the country, as well as proving a very judicious investment of capital. The total traffic returns of 1844 were £5,584,982 or £3,094 per mile per annum; in 1843, £4,827,655, or £3,044; in 1842, £4,341,781, or £2,856 per mile per annum.

"Thus it appears that while railway traffic has increased in 1843 11.2 per cent. over 1842, and in 1844 over 1843 15.6 per cent, the capital expended in 1843, exceeded that of 1842 by 9.7 per cent., and that in 1844 exceeded that of 1843 by 9.6 per cent. All

things taken into account it appears that the proportional increase of traffic has exceeded by more than 50 per cent. the proportional increase of expenditure, and it is to be hoped that the extensive experience afforded by the construction and working of so many miles of railway will enable the various companies to further reduce the amount of future expenditure in both the construction and working of the lines, so as not only to afford the greatest possible amount of accommodation to the public, but at the same time, to secure a safe and handsome return for the shareholders."

Electric Telegraph.—The work of laying down the patent electric telegraph on the South Western railway, from London to Gosport, is nearly completed. The posts for sustaining the wires, which are fixed at about 50 yards distance, are put down nearly the whole way, and the fixing of the wires is being rapidly proceeded with. The cost of the work, about £24,000, is we understand borne in equal proportions by the company and by the board of admiralty.—*Exeter News*.

London and Birmingham Railway.—The traffic this half year has been very good, and the dividend will be as before, at the rate of 10 per cent. The rumor that this company intend to lay down a third set of rails, to accommodate the coal and additional goods traffic, is all fudge. The company could carry much more traffic than they have without inconvenience. Extra goods would, of course, go at night, when the line is comparatively not used.—*Herapath*.

Thames Tunnel Company.—The number of passengers who passed through the tunnel in the weeks ending January 18, was 19,962; amount of money, £83 3s. 6d., (last year, £105 9s. 3d.)

Jan. 25.—Passengers, 21,137; amount of money, £88 1s. 5d., (last year, £112 4s. 10d.)

Important Fact.—It is a singular circumstance, and one as to which there can be no doubt, that of all the accidents which have occurred in railway travelling, not one has proved fatal to any passenger in a first class carriage.

The Lancaster and Carlisle company have completed the additional agreement with the Lancaster and Preston company for the transfer of the latter railway, in consideration of a guarantee of 5 per cent. on the capital of £400,000, with an option of amalgamation, or one-third share of the profits above 5 per cent. All incumbrances, including the lease to the Lancaster canal, and the debt of £113,000 go with the property. The Lancaster and Carlisle line is progressing favorably, and the contracts have been made on very advantageous terms.—*Herapath*.

German Railways.—A letter from Berlin of recent date says: "There is great activity and spirit displayed here in all that concerns our railways. The chief point is, how the expense of our projects is to be met; but all agree that it is not possible to raise the means by an arrangement with the bankers of the country; therefore application has been made to a foreign banker."—*Herapath*.

ENGLISH RAILROAD SHARE-LIST.

ENGLISH RAILROAD SHARE-LIST.																				
NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.		Total sums, in pounds, authorized to be raised by loan or mortgage.		Total sums, in pounds, expended at dates of latest balance sheets.		Cost of working in pounds for six months as stated in latest balance sheets.		Total earnings, in pounds, for six months as stated in latest balance sheets.		Dividend at last meeting.		Paid on share.		NEW AND PROPOSED RAILWAYS.		Share Capital.		
		£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	Per share.	Per cent. per annum.	Value of share.	£	s. d.				
Arboath and Forfar.....	15	102,000		35,000		138,870						0 12 6	2 10 0	25	27	Aberdeen.....	1,600,000			
Birmingham and Gloucester.....	55	1,187,500		407,336		1,500,806		39,261		53,203		1 5 0	2 10 0	100	100	Barnsley Junction.....	200,000			
Branding Junction.....	23	161,700		365,470		481,452										Belfast and Ballymena.....	385,000			
Bristol and Gloucester.....	37½	400,000		211,000												Blackburn and Accrington.....	400,000			
Chester and Birkenhead.....	14½	750,000		143,170		518,983		5,856		13,148		0 8 6	1 14 0	50	32	Birk. and Ches. Junction.....	1,000,000			
Dublin and Drogheda.....	31	450,000		150,000		500,869										Bolt, Wigan and Liverpool.....	800,000			
Dublin and Kingston.....	6	200,000		152,200		359,000						6 0 0	6 0 0	100	166	Caledonian.....	1,800,000			
Dundee and Arbroath.....	16½	100,000		49,445		153,416		2,989		6,993		1 5 0	5 0 0	25	29	Cambridge and Lincoln.....	1,250,000			
Durham and Sunderland.....	18½	169,350		124,055		270,392		9,889		17,702						Chatham and Portsmouth.....	5,000,000			
East County and North and East.....	86½	4,443,200		1,341,155		3,931,905		47,385		118,726		1 6 6		45	57	Chester and Wrexham.....	120,000			
Edinburg and Glasgow.....	46	1,125,000		375,000		1,649,523		29,429		55,866		2 6 4	10 0 0	50	57	Churnet valley.....	1,800,000			
Glasgow, Paisley and Ayr.....	51	937,500				1,066,951		12,446		36,736		2 6 4	10 0 0	50	60	Direct Northern to York.....	4,000,000			
Glasgow, Paisley and Greenock.....	22½	650,000		216,666		787,881		11,572		23,177		5 0 2	0 0 0	25	12	Dublin and Belfast.....	950,000			
Grand Junction.....	104	2,478,712				2,453,169		84,309		195,080		0 0 10	0 0 0	100	210	Dundee and Perth.....	250,000			
Great North of England.....	45	969,000		581,017		1,262,518		12,201		36,189		12 6 3	5 0 0	100	119	Edinburg and Northern.....	800,000			
Great Western.....	221½	4,650,000		3,679,343		7,272,539		132,235		369,904		3 10 0	7 0 0	75	138	Ely and Bedford.....	270,000			
Hartlepool.....	15½	438,000		155,540		719,205										Glasgow, Dum. & Carlisle.....	1,300,000			
Leicester and Swannington.....	16½	140,000				140,000		2,207		6,317		1 5 0	5 0 0	50		Gt. South and West Ext.....	1,200,000			
Liverpool and Manchester.....	32	1,209,000		497,750		1,739,835		57,239		117,559		5 0 0	10 0 0	100	203	Gt. Grimsby and Sheffield.....	600,000			
Llanelli.....	27	200,000		44,000		221,624						1 0 0	2 0 0	87		Harwich and E. coun. Jun.....	160,000			
London and Birmingham.....	12½	6,874,976		1,928,845		6,393,468		92,823		405,768		10 0 0	0 0 0	100	218	Huddersfield & M. rl. & cl.....	60,000			
London and Blackwall.....	3½	804,000		266,000		1,315,640		15,978		23,870						Kendal and Windermere.....	125,000			
London and Brighton.....	56	1,793,800		998,350		2,630,451		29,372		84,880		0 12 0	2 8 0	50	47	Leeds and Dewsbury.....	400,000			
London and Croyden.....	8½	550,000		229,000		761,885		7,583		10,545		0 5 0	2 10 0	14	17	Leeds and Thirsk.....	800,000			
London and Greenwich.....	3½	759,383		233,300		1,040,930		15,193		28,933						Liv. Ormskirk and Preston.....	600,000			
London and South Western.....	92½	2,222,100		630,100		2,596,291		68,457		150,469		12 6 6	10 0 0	41	73	London and Portsmouth.....	1,750,000			
Manchester and Birmingham.....	31	2,100,000		690,586		1,923,699		15,397		58,162		1 0 6	5 0 0	40	48	London and York.....	5,000,000			
Manchester and Bolton.....	10	778,100		197,730		773,743		8,585		21,140		2 0 2	4 10 0	93	110	Londonderry & Enniskillen.....	500,000			
Manchester and Leeds and Hull.....	81	2,937,500		1,943,932		3,921,593		46,653		156,761		7 1/2	10 1/2	60	88	Lynn and Ely.....	200,000			
Midland railway.....	178½	5,158,900		1,719,630		6,279,056		76,983		281,898						Manchester, Bury and Ross.....	300,000			
Newcastle and Carlisle.....	61	878,240		188,563		1,135,069		26,499		73,947		4 0 0	4 0 0	100	105	Manchester and Buxton.....	250,000			
Newcastle and Darlington.....	23	500,000				405,728										Mullingar and Athlone.....				
Newcastle and North Shields.....	7	150,000		153,876		309,629		8,943		18,466		2 0 0	5 0 0	37		Newcastle and Berwick.....	700,000			
North Union.....	39	739,201		308,306		1,015,447		9,071		37,794		2 10 0	6 16 8	100	104	Richmond & W. End June.....				
Paris and Orleans.....	82	1,600,000		400,000		1,978,415						0 16 0	8 0 0	20	39	Scottish Central.....	700,000			
Paris and Rouen.....	84	1,440,000						31,247		91,171						Sheffield and Lincolnshire.....	650,000			
Preston and Wyre.....	19	830,000		179,852		355,161		4,191		7,066						Shrewsbury and Gd. June.....	400,000			
Sheffield and Manchester.....	19	1,150,000		311,759		951,455		11,895		14,876						Shrew. Wolv. Dudley & B.....	900,000			
South Eastern.....	88	2,996,000		1,530,277		3,464,172		40,993		81,482		0 10 6	2 2 0	50	39	Trent Valley.....	900,000			
Taff Vale.....	30	465,000		154,785		590,006		8,509		18,414		0 0 0	6 5 0	100	55	West London Extension.....	64,000			
Ulster.....	25	519,150		20,000		348,626		5,401		13,856		0 15 0	5 1 8	29	37	West Yorkshire.....	1,000,000			
Yarmouth and Norwich.....	20½	187,500		62,500		230,250										Whitehaven and Maryport.....	100,000			
York and N. Mid. and Leeds and Selby	28	1,062,500		167,500		676,644		27,132		55,752		3 10 0	10 0 0	50	100	FRENCH RAILWAYS.				
Steam and Miscellaneous.							NAME OF COMPANY.		Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.						
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140								
Anti Dry Rot.....	10,000		18½		2		Monmouthshire.....	2,409	100	100	10	160	160							
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117							
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10									
Gt. Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15							
Metropolitan Wood Pav..	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365							
Patent Elastic Pav.....	10,000	1	1	5	1½		Oxford.....	1,786	100	100	30	505								
Peninsular and Oriental...	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25							
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120							
Polytechnic Institution...				6			Somerset coal.....	800	150	150	7½	123	123							
Reversionary Int. Soc.....	5,323	100	100	4½	104	104	Stafford and Worcester...	700	140	140	25	180	180							
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230							
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360							
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19									
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240							
University College.....	1,500	100					Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30							
							Trent and Mersey.....	2,600	50	50	65	495								
							Thames and Medway.....	8,149	19½	19½		10	10							
							Warwick and Birmingham.	1,000	100	100	10½	167								
							Warwick and Napton.....	980	100	100	8½	122								
Canals.							Water Works.													
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Birmingham.....	4,800	25	25	3½	28	28							
Barnsley.....	720	100		14	180	180	East London.....	4,433	100	100	8	223	225							
Birmingham, 1-16 share..	3,000	118½	79	10	150	160	Grand Junction.....	5,500	av.	41 2-3	7½	88	90							
Do. and Liverpool Junction	4,000	160	100		13½	13½	New River L. B. Ann.....	1,500			2½									
Covey.....	500	100	100	20	365	365	Manchester and Salford.....	6,486	av.	30	8½	57	57							
Cromford.....	460	do.	do.	24	250	250	Vauxhall, lt. S. London...	1,000		100	5	55	55							
Derby.....	600	do.	do.	9	105	105	West Middlesex.....	8,294	av.	63½	6½	126	127							
Erewash.....	231	do.	do.	32	440	440	DOCKS.													
Forth and Clyde.....	1,297	400½	40½	4	440	440	Commercial Dock.....	1,065	100	100	3	0								
Grand Junction.....	11,600	100	100	7	162	161½	East and West India.....		sto.		5½	137								
Grand Surrey.....	1,500	do.	do.		20		London.....	3,238	310	sto.	4½	114½	115							
Gloucester and Rerkley....	5,000	do.	do.		8	8	St. Katharine.....	1,352	752	sto.	5	116	171							
Grantham.....	749	150	150	8	185	185	Southampton.....	7,000	50	50										
Lancaster.....	11,699	47½	47½	3	40	40														
Leeds and Liverpool.....	2,897	100	100	34	640	640														
Liechester.....	545	140	140	9	139	139														

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.		Length in miles.	Cost.	1843.		1844.		The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.
				Income.	Expend.	Income.	Expend.	
N. Y.	1 Black river canal.....	35	1,524,967					The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which <i>additional</i> sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,400,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of \$39,000 and \$14,000 respectively.
"	2 Cayuga and Seneca.....	21	237,000	16,557	10,953	24,618	14,443	
"	3 Champlain canal.....	64	1,251,604	102,308		116,739		
"	4 Chemung.....	23	684,609	8,140	14,486	14,385	12,740	
"	5 Chenango.....	97	2,420,000	16,195	15,967	22,179	15,963	
"	6 Crooked lake.....	8	156,777	461	3,674	1,498	3,951	
"	7 Erie—enlargement of.....	363	12,648,852	1,880,316				
"	8 Genesee valley.....	120	3,739,000					
"	9 52 miles opened, cost \$1,500,000.....			12,292	13,819	19,611	15,557	
"	10 Oneida lake.....	6	50,000	225	2,239	621	1,636	
"	11 Oswego.....	38	565,437	29,147	22,742	56,165	28,599	The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,164,326, and the cost about 30 millions. The receipts for 1844 were as follows: Canal tolls, - - - - - 578,404 Railroad tolls, - - - - - 252,855 Motive power, - - - - - 319,590 Trucks, - - - - - 13,477 of which \$585,922 is from 118 miles of railroad, and \$578,404 from 550 miles of canal. The canals of Ohio are supported by a property tax of 54 mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
Pa	12 Beaver division canal.....	25				7,381	5,386	
"	13 Delaware canal.....	60				109,278	22,870	
"	14 French creek.....	45						
"	15 Seneca river towing path.....		69,276			381		
"	16 Columbia railroad.....	82				443,336	205,067	
"	17 Eastern division.....	36				179,781	138,915	
"	18 Juniata canal.....	39						
"	19 Portage railroad.....	130				351,102	248,943	
"	20 Western division canal.....	105						
"	21 North branch Susquehanna canal.....	73				101,949	57,633	The canals of Ohio are supported by a property tax of 54 mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
"	22 West ".....	72						
Ohio	23 Hoeking canal.....	56	975,130	4,757		5,286	4,139	
"	24 Miami canal.....	85	1,660,742	68,640	38,826	77,844	22,341	
"	25 Miami extension.....	105	2,856,636	8,291		12,723	14,741	
"	26 Miami northern division.....	35	322,000			unfin'd.		
"	27 Muskingum.....	91	1,627,318	25,167		29,385	15,027	
"	28 Ohio.....	334	4,600,000	322,754	122,398	343,711	113,210	
"	29 Wabash.....	91	3,028,340	35,922	6,400	48,589	12,817	
"	30 Walhonding.....	25	607,269	838	39,005	1,977	1,238	
"	31 Western road.....	31	255,015	7,254	1,782	8,747	2,929	The canals of Ohio are supported by a property tax of 54 mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
Ind.	32 Sundry works.....		11,000,000					
"	33 Maume canal.....							
Ill.	34 Sundry works.....		10,000,000					
Mich	35 Central railroad.....	110	1,812,308	149,987	75,960	211,170	89,420	
"	36 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000	

CANALS.		Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
				Gross.	Nett.		Gross.	Nett.			
	Blackstone.....										We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.
	Bald Eagle Navigation.....	25	400,000								
	Beaver and Sandy, (part).....		1,000,000								
	Charleston, (S. C.).....										
	Chesapeake and Ohio.....	184	12,370,470	47,637							
	Conestoga.....	12	300,000								
	Delaware and Chesapeake.....	13								26	
	Schuylkill.....	108	3,500,000	279,795	102,221		190,693	120,624		31	
	Farmington.....										
	James river and Kenhawa.....										
	Middlesex.....										We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.
	Port Deposit.....	10	200,000								
	Delaware and Raritan.....	43	2,900,000	99,623	53,327						
	Southwark.....		300,000								
	Tide Water.....	45	2,900,000								
	Union.....	80	2,000,000								
	Morris.....	101	1,000,000							28	
	Dismal Swamp.....										

CANADIAN CANALS.		Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	1843.	
					Length of chamber.	Width.	Depth on mitre sill.	Bottom.	Surface.			Income.	Expense.
	The Welland canal.....				feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572	64,658	1,169
	Main trunk from Port Colborne to Port Dalhousie.....	28	31	328	150	26 1-2	8 1-2	45	81				
	Junction branch to Dunville.....	21	1	6	150	26 1-2	8 1-2	35	71				
	Broad creek branch to Port Maitland.....	1 1-2	1	6	200	45	9	45	85				
	The St. Lawrence canal.....												
	Galops and Port Cardinal.....	2	2	7	200	45	9	50	90				
	Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	973		
	Farren's point.....	3-4	1	3 1-2	200	45	9	50	90				
	Cornwall, passing the Long Sault rapids.....	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663		
	Beauharnois, do. Coteau, Cedars and Cascades road.....	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426		
	Lachine, do. Lachine rapids.....	8 1-2	5	44 1-2	200	45	9	80	120	old canal. 400,000		29,288	9,011
	Elargement of do.....									1,001,333	64,439		
	Total from lake Erie to the sea.....	12	57	525									
	Chambly.....	66	9	74	120	24	6	36	60	200,000	440,000	1,409	1,096

COAL COMPANIES.		Length in miles.	R. rd. Canals.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
					Gross.	Nett.		Gross.	Nett.			
	Delaware and Hudson.....	16	108	2,800,000	930,203	196,702	10				117	
	Lehigh.....	20	72	6,000,000							31	

AMERICAN RAILROADS.													SALES.	
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending 22d February.
							Gross.	Nett.		Gross.	Nett.			Shares. Price
N. H.	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	98½	
Mass.	2 Concord.	35	750,000									12	130	
"	3 Boston and Maine.	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110	
"	4 Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	1 118½
"	5 Boston and Providence.	41	1,886,135				233,388	110,823	6	282,701	156,109	6	107	36 107½
"	6 Boston and Worcester.	44	2,914,078				404,141	162,000	6	428,437	195,163	7½	117½	80 116
"	7 Berkshire.	21	250,000	not stated				17,500	7	17,737				
"	8 Charlestown branch.		280,260						13	34,654	13,971	5½	81	32 82½
"	9 Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½	26 117½
"	10 Fitchburg.	50	1,150,000	just op'n'd						42,759	26,835		118	1 117
"	11 Hartford and Springfield.	25 1-2	132,852	do.										
"	12 Nashua and Lowell.	14 1-2	380,000				84,079		8	94,588	34,944	10	120	
"	13 New Bedford and Taunton.	20	430,962				50,671	24,000	6	64,998	24,000	6		
"	14 Norwich and Worcester.	59	2,170,366	not stated			162,336	24,871		230,674	99,464	3	71	7,617 73½
"	15 Taunton branch.	11	250,000					20,000	8	96,687	20,000	8	118	
"	16 West Stockbridge.	3	41,516	200								4		
"	17 Western, (117 miles in Mass.)	156	7,686,202	4,686,202	30,000	100	573,882	284,432		753,753	439,679	3	99½	19½ 99½
"	18 Worcester branch to Milbury.		8,431	506										
Con.	19 Hartford and New Haven.	38											100	
"	20 Housatonic, (10 months.)	74	1,244,123							150,000			37	
"	21 Stonington, (year ending 1st Sept.)	48	2,600,000				113,889			154,724	79,845		42	1,87½ 43½
N. Y.	22 Attica and Buffalo.	31 1-2	268,275				45,896	7,522						
"	23 Auburn and Rochester.	78	1,727,361				189,693	112,000					107	27 106½
"	24 Auburn and Syracuse.	26	743,931				86,291	27,334					116	
"	25 Buffalo and Niagara.	23	200,000		1,500	133½							100	
"	26 Erie, (446 miles.)		5,000,000										30	400 30½
"	27 Erie, opened.	53						48,000						
"	28 Harlem.	26	2,200,000										70½	1,150 71
"	29 Hudson and Berkshire.													
"	30 Long Island.	95	1,884,640	392,340	29,846	50				153,456	70,043		78	4,385 79½
"	31 Mohawk.	16 3-4	1,030,949				69,948	58,780		84,306	40,000		65	225 65½
"	32 Tonawanda.	43	600,000				76,227							
"	33 Troy and Greenbush.	6	180,000											
"	34 Troy and Saratoga.	25	475,865				44,325	21,000						
"	35 Troy and Schenectady.	20 1-2	633,520				28,043							
"	36 Schenectady and Saratoga.	22	300,000				42,242	3,000	1					
"	37 Utica and Schenectady.	78	2,124,013				277,164	180,000	9				129½	
"	38 Utica and Syracuse.	53	1,080,219				163,701	72,000					115½	
N. J.	39 Camden and Amboy.	61	3,200,000				682,832	383,880					110	5 110½
"	40 Elizabethtown and Somerville.	26	500,000											
"	41 Morris and Essex.													
"	42 New Jersey.	34	2,000,000										94	
"	43 Paterson.	16	500,000										6	85½ 75 85
Pa.	44 Beaver Meadow.	26	1,000,000											
"	45 Cumberland Valley.	46	1,250,000											
"	46 Franklin.	10 1-2												
"	47 Harrisburg and Lancaster.	36	860,000										30	
"	48 Hazleton branch.	10	120,000											
"	49 Little Schuylkill.	29	900,000											
"	50 Blossburg and Corning.	40	600,000											
"	51 Mauch Chunk.	9	100,000											
"	52 Minehill and Schuylkill Haven.	18	315,000						12				140	
"	53 Norristown.	20	800,000										6	
"	54 Philadelphia and Trenton.	30	400,000										105	
"	55 Pottsville and Danville.	29 1-2	1,500,000											
"	56 Reading.	94	9,457,570	7,447,570	40,200	50				597,613	343,511		48	4,935 49
"	57 Schuylkill valley.	10	1,000,000											
"	58 Williamsport and Elmira.	25	400,000				20,000							
"	59 Philadelphia and Baltimore.	93	4,400,000				43,043	200,000			210,000		42	5,227 43½
Del.	60 Frenchtown.	16	600,000											
Md.	61 Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		358,620	346,946		48½	22 48½
"	62 Baltimore and Susquehanna.	58	3,000,000										5	
"	63 Baltimore and Washington.	38	1,800,000				177,227	71,691		212,129	104,529		84	
Va.	64 Greenville and Roanoke.	17 1-2	260,000											
"	65 Petersburg and Roanoke.	60	766,000										3	
"	66 Portsmouth and Roanoke.	78 1-2	850,000											
"	67 Richmond and Fredericksburg.	61 1-2	1,200,000											
"	68 Richmond and Petersburg.	22 1-2	700,000											
"	69 Winchester and Potomac.	32	500,000											
N. C.	70 Raleigh and Gaston.	84 1-2	1,360,000											
"	71 Wilmington and Raleigh.	161	1,800,000											
S. C.	72 South Carolina.	136	5,299,224		34,410	75							8	
"	73 Columbia.	66					201,464	77,456		328,425	180,704		55	
Ga.	74 Central.	190	2,581,723				227,532	93,190						
"	75 Georgia.	147 1-2	2,650,000				248,026	158,207		248,096	147,523			
Ala.	76 Tusculumbia.	46												
Ky.	77 Lexington and Ohio.	40	500,000											
Ohio	78 Little Miami.	40	450,000											
"	79 Mad river.	40	400,000											
"	80 Monroeville and Sandusky.													
Mich.	81 Detroit and Pontiac.	25												
"	82 Erie and Kalamazoo.	33												
Ind.	83 Madison and Indianapolis.	56	152,000											
Can.	84 Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110	

We particularly request statements of the traffic of each week and of the corresponding week of last year to be regularly sent to us.

Correspondents will oblige us by sending in their communications by Monday morning at latest.

PRINCIPAL CONTENTS.

First annual report of the Boston and Maine extension company.....	163
Thirteenth annual report of the Boston and Providence railroad corporation.....	163
Ninth annual report of the Charlestown branch railroad.....	163
Ninth annual report of the Eastern railroad company.....	164
Foreign extracts.....	164
Traffic returns of English railways.....	165
State works of New York.....	170
Enlargement of the Morris canal.....	171
Miscellaneous items.....	172
Suspension aqueduct.....	172
Board of railway commissioners.....	173

AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, March 13, 1845.

WESTERN RAILROAD.—Receipts for the week ending March 1:			
	1845.	1844.	
Passengers, - - -	\$5,020	\$3,693	
Freight, etc., - - -	6,878	6,465	
Total, - - -	\$11,898	\$10,158	

The receipts of the Norwich and Worcester railroad for February were		\$11,764
Same month last year, - - -		11,785
Receipts for January, 1845, reported, -		11,600
Two months in 1845, - - -		23,364

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:		4,770-15
Per last report, - - -		34,818-05
Total, - - -		39,588-20

THE COAL TRADE.—Sent by railroad up to Thursday evening last.— <i>Miners' Journal</i> .		
Schuylkill Haven, - - -		5,973-06
Pottsville, - - -		2,269-11
Per last report, - - -		8,242-17
		50,914-29
		59,156-46

PHILADELPHIA AND COLUMBIA RAILWAY.—The following shows the collections at this office for the month of February, 1845:

	Railway.	M. Power.	Total.
Am't as per last report,	8,492-15	10,116-15	18,608-30
Do. for February, 1845,	4,715-38	9,119-03	13,834-41
Whole amount since			
Nov. 30, 1844,	13,207-53	19,235-18	32,442-71

RAILWAYS OF MASSACHUSETTS AND CANALS OF NEW YORK.

The railways of Massachusetts which have been in operation for one or more years have cost \$23,000,000, and yield a nett revenue of 6½ per cent. on that amount. The canals of New York yielded last year 6 per cent. on their cost. Here, however, the similarity ends. The railways of Massachusetts would sell to-morrow for more than they cost: the canals of New York would not bring half cost; even the Erie canal would not command the twenty millions of dollars laid out on it. The railways of Massachusetts are used throughout the year for the transportation of both passengers and freight, the canals of New York are navigable during seven months of the year for the transportation of freight. The farmer of Massachusetts may send his fresh meat, butter, etc., to market by any railway, or other mode of conveyance he may prefer, at any season of the year; the farmer of New York is strictly prohibited from the use of railways during the summer, because that

is the only way of reaching market during the hot weather, but is allowed to use the canals whenever he pleases—in summer, because the rate of speed is too low to carry fruit, meat, butter, etc., without spoiling, and in winter, because the canal is frozen up, when the permission can do the government no harm and the farmer no good. The existing railways of Massachusetts are leading to the extension of those works in all parts of the State; the canals of New York have always been an incubus on private enterprise, and, we may safely assert, that the line of railway from Albany to Buffalo has been completed in spite of them. We could not desire a better illustration of the effects of the rival systems of governmental and private works: the former cripples the energies of the people by odious monopolies and heavy taxes, and disgraces the country by the construction of works whose cost is inversely as their usefulness; the latter bestows on the country, without any taxes, a system of works as useful and honorable in peace as they are powerful in war; affords immense facilities to the great agricultural and manufacturing interests, and, by the success which almost invariably attends its efforts, gives the greatest possible encouragement to its own extension.

MR. EDITOR: I was pleased to see in a late number of your Journal a notice of Nicoll's safety switch. Mr. N. has added a valuable appendage to railroad tracks, which, I trust, will be universally tried and adopted. The accidents which result from want of adjustment of switches are very numerous, and it is not saying too much, that Mr. N. has provided a remedy for a very serious defect in the tracks as now in use.

It is not wonderful that railroad corporations are tired of examining new patent machinery and fixtures, but the safety switch of Mr. N. really deserves consideration.

MASSACHUSETTS.

[The above is from a source which entitles it to be received with confidence.—*E. J. Journal*.]

RAILWAYS OF NEW YORK.

The official document containing the reports of the various railway companies to the legislature is not yet out. The Albany Argus gives the principal table and some remarks. We select two of the latter, and shall be happy to find the second borne out by the document itself; as for the first, it is so notoriously wrong, that the writer is probably trying the gullibility of the public; in the manner of the governor, who, after a long dissertation on the canals, their immense cost and the deep interest taken in them by the public, turns to the comparatively neglected subject of education, and its limited funds, with the sarcastic observation that "it is pleasant to turn" "to subjects the most vital to republican institutions."

"This report for 1844 exhibits a very flattering condition of the roads of this State. In the aggregate, they have reached a stage of successful operation, far beyond the most sanguine anticipations. Like our public canals, the other great arm of internal improvements, their career has outstripped even the ardent predictions of their projectors."

"By reference to the cost of construction given in the table, and deducting the cost of the Schenectady and Troy, and the Albany and West Stockbridge roads, from which no revenue is derived, the total cost of the other roads is shown to be \$17,197,251, from which are derived the aggregate income of \$1,100,016. From this statement results \$17,197,251: 1,100,016 :: 1 : 64 or 6 4-10 per cent. on the capital invested.

"This is an increase of nearly one per cent. over the results for the year 1843.

"The railroads of Massachusetts ranged about the same for that year."

✂ We call upon the government and the legislature to enforce rigorously and by the severest penalties, proper statements of the condition of every railway company in the State. It is openly asserted in the public prints that the reports of some companies—the Long Island and the Harlem among the rest—are anything but fair. Charges of this kind, if unfounded, would subject the writer or the publisher to heavy damages, if not indeed to imprisonment; and deservedly so.

We find serious charges against the New York and Erie railroad company, in the official report of the railroad commissioner, at the very time when another instalment is called in. The great object of the *Journal* is to give the public correct information as to the actual condition of the railroad companies in the United States, and to do this is not very easy, even with pretty full reports; but when reports are drawn up purposely to entrap the unsuspecting, all we can do is to warn the public against having anything to do with them. The legislature can powerfully aid the cause of public works by insisting on full statements of the affairs of each company. It is true that the loss falls on individuals and not on the entire community, as in the case of State works; still, so vast an interest has the public in the extension and proper management of railways, that they cannot be neglected by the legislature, without inflicting at the same time serious injury on all classes of our citizens.

✂ We acknowledge the receipt of the reports of the Massachusetts railways from H. Williams, Esq., treasurer of the Boston and Worcester railroad, also from W. R. Lee, Esq., superintendent of the Providence railroad. We are indebted to C. M. Keller, Esq., of the patent office, for the annual report of the commissioner of patents.

✂ Will some friend oblige us with a copy of the last report of the Camden and Amboy railroad company?

✂ A late number of the Philadelphia Ledger contains a "Prospectus for a loan of \$500,000," for the enlargement of the Schuylkill navigation, signed by C. Ellet, C. E., and dated New York, March 1, 1845. This is the first we have heard of this affair, or we should at once have warned our citizens to have nothing to do with it. Its success is based on carrying freight on a canal at the rate of 30 cents for 108 miles, or 41 2-3 cents from New York to Albany, less than half the cost by the Hudson!

✂ We perceive that the gentlemen alluded to in our last, as having taken hold of the New York and Albany railroad, are now in Albany laying their views before the railroad committee of the legislature. They propose to construct a road of the first order, over which the distance may be run in five hours. On the other side, the friends of the Harlem demand a charter to enable them to connect their railroad—if it may be called such—with the Boston and Albany line in Columbia county. We cannot for a moment entertain a doubt as to the course the legislature will adopt. The immediate construction of a first rate railway is the end the new company have in view, the name of the Harlem railroad at once conjures up a gambling, unproductive and miserable affair, caring nothing for the accommodation of the public, and in which no man would ever think of making an investment.

✂ A meeting has been called in Boston to discuss the policy of uniting the Worcester and Western railroads, under the title of the Boston and Albany railroad.

STATE WORKS OF NEW YORK.

Having given the financial condition of the canals, we now lay before our readers such extracts from the report of the canal commissioners as may be required to complete the view of the public works of New York.

"The navigation on the canals was commenced on the 18th of April, and closed on the 26th of November.

"From the commencement to the close, there were but few interruptions to navigation; which interruptions, and the causes of them are particularly stated in other parts of this report.

"The amount of tolls received on the canals, has been much greater during the last than in any preceding year.

"Boats have carried as heavy cargoes as heretofore, but the great increase of business on the canals has materially added to the number of lockages."

The amount expended by the commissioners on all the works during the past year is \$720,449 93. Of this sum, \$418,692 06 were for the enlargement of the Erie canal, and \$202,106 67 were for the Genesee valley canal.

"Lockages.—A table showing the number of lockages at Alexander's lock, three miles west of Schenectady, from 1824 to 1844, inclusive, is hereto appended.

"It will be seen by an examination of this table, that the number of lockages in 1844 was greater than in any other year, with the exception of 1841. The increase of 1844 over 1843, was about 5,000, and about 2,000 less than in 1841. The great number of lockages in 1841, was occasioned by the large amount of materials boated for work then in the progress of construction on the enlargement of the canal, and not by the greater quantity of ordinary freight transported.

"The delays to navigation are said to have been very great at some of the single locks in 1841.

"Although the number of lockages on any day the past season, may not have been so great as to tax the single locks to their utmost capacity, if boats had arrived regularly above and below the locks, so that no time would be lost in filling and emptying them when no boat passed; yet the delay at times, from the irregularity of the arriving of boats, was such as to make it exceedingly inconvenient to navigators at all the single locks east of Syracuse."

"If the business on the canals continues to increase, it will soon be indispensable to its accommodation to have double locks brought into use at all places from Albany to Syracuse."

"There are from Albany to Syracuse, including those at each place, 49 sets of double locks, as the same were located for the enlargement of the canal.

"From No. 1 to 23 inclusive, these locks are completed and in use, being all the locks from Albany to and including the first one west of Schenectady.

"No. 24 has not been put under contract."

Many of the remainder are in use and all are nearly completed.

TABLE

Of lockages at Alexander's lock, three miles west of Schenectady, from 1824, when the canal was opened, to 1844, both years inclusive.

Year.	No. of lockages from opening to close of canal.	Average lockages each 24 hours.	Average No. of minutes to pass each boat.	Per ct. increase over previous season.	Per ct. decrease from previous season.	Navigation opened.	Navigation closed.	No. of days of navigation.
'24	6,116	27-92	51-57	.....	.....	Ap'l. 30	Dec. 4	219
'25	10,985	46-15	31-20	79-61	.....	12	5	238
'26	15,156	62-37	23-08	37-98	.....	20	18	243
'27	13,004	53-95	26-69	.....	14-19	22	18	241
'28	14,674	54-55	26-40	12-84	.....	Mar. 27	20	269
'29	12,619	54-86	26-25	.....	14-00	May 2	17	230
'30	14,674	60-63	23-81	16-28	.....	Ap'l. 20	17	242
'31	16,284	70-80	20-33	10-97	.....	16	1	230
'32	18,601	77-17	18-66	14-22	.....	25	21	241
'33	20,649	86-76	16-59	11-01	.....	19	12	238
'34	22,911	95-46	15-08	10-95	.....	17	12	240
'35	25,798	112-16	12-84	12-60	.....	15	Nov 30	230
'36	25,516	118-13	12-19	.....	1-09	25	26	216
'37	21,053	89-92	16-01	.....	17-49	20	Dec. 9	234
'38	27,962	122-64	11-74	32-81	.....	12	Nov 25	228
'39	24,234	100-55	14-32	.....	13-33	20	Dec. 16	211
'40	26,987	118-36	12-26	11-36	.....	20	3	228
'41	30,320	137-19	10-57	12-25	.....	24	Nov 30	221
'42	22,879	103-05	13-97	.....	24-54	20	28	222
'43	23,184	108-33	13-29	1-33	.....	May 1	30	214
'44	28,219	127-11	11-33	21-72	.....	Ap'l. 18	26	222

It will be seen that the locks of the Chenango canal are giving out, and that this vile political job, as well as its twin brother, the Genesee valley canal, has not a sufficient supply of water to—do nothing, for, such is, practically speaking, the amount of its business. The best plan would be for the State to sell them out, or, if no purchasers present themselves, to give them away, or, failing that, to abandon them to the frogs. Indeed, the increasing demand for this fashionable description of food, would seem to point out that the case is—as the governor observes—not quite desperate; and that a considerable revenue might be derived; sufficient to warrant the appointment of an acting, or rather active commissioner, and a corps of catchers and—voters.

"Chenango Canal.—This canal is 97 miles in length, extending from the city of Utica to the village of Binghamton, in the county of Broome, where it unites with the waters of the Chenango and Susquehanna rivers at their junction.

"The locks on this canal, with one exception, are of the composite kind, built in such a manner as to admit of the timber being taken out, and others put in without destroying the masonry.

"Many of the locks give evidence that the time is not far distant when they will have to undergo a thorough repair, in order to insure good navigation. There can be no doubt that the expenses for repairs on this canal for three years to come will be far greater than for the three years past.

"The sluices around the locks were constructed of wood, and many of them have

undergone a thorough repair the last season, and others will require to be rebuilt soon.

"There is a very large number of bridges on this canal. Many have been repaired the past season, and more will require it the next.

"One new double track bridge has been built in the city of Utica across the canal on Court street, which adds greatly to the convenience of that place.

"The bottom of the canal has been thoroughly cleared out in many places, the banks have been strengthened, and good navigation maintained, with but little interruption during the season. There was, however, a time that want of water was experienced on the summit, occasioned in part by the drought, but this was of short duration.

"From the decayed state of the chambers of the locks, a very great increase of leakage takes place, which, combined with the unusual increase of lockages, renders an additional supply of water necessary.

"The capacity of all the reservoirs and feeders, was, during the past season, taxed to its utmost extent, and notwithstanding a deficiency of water was experienced, and for a short time the summit level was so low that boats could not float upon it. If the drought had continued one week longer, the navigation must have been suspended for a time.

"The commissioners, in their annual report of last year, at page 70, described the destruction of the Kingsley brook reservoir, and stated the probable expense of repairing at \$8,000. They also stated that they 'were of the opinion that the water to be furnished from this reservoir would not be required for the navigation of the canal,' and therefore had not directed the superintendents to repair it. In view of the deficiency of water experienced last summer, and for the reason that an increased demand will continue to be made the commissioners are now of the opinion that this reservoir should be repaired."

"Genesee Valley Canal.—The navigation on the finished part of this canal has been maintained through the season, with but little interruption, except on the Dansville branch.

"Since the completion of this part of the canal, there has been a deficiency of water in drought seasons to supply the lockages near its southern termination.

"The canal commissioners, in their last annual report, at pages 71 and 72, say, 'The water to supply the short levels from Dansville north to the Canescraga feeder, a distance of about three miles, is obtained from Mill creek, a very inconsiderable stream, which does not afford a sufficient supply in dry seasons for this part of the canal.'

"During the months of July and August, and the first week in September, the deficiency of water was so great as to cause serious delays to navigation, and on several occasions to prevent the passage of boats."

"The experience of the two years this part of the canal has been in use, shows the necessity of obtaining an additional supply of water for these levels."

"Similar difficulties have occurred the past year, although in a less degree.

"The Canescraga feeder has afforded less water the past season, than in any previous

year since the completion of this canal. This has occasioned some interruption to navigation on the levels north of the feeder, and between it and the Genesee river.

"Until more water is obtained, either by bringing in other streams or by constructing a reservoir on Mill creek, as suggested in the report before referred to, these detentions to navigation, will in all probability, continue to occur in low stages of water."

"The work on the unfinished part of this canal, generally remains in the same condition as at the date of the last annual report.

"The foundations of the locks and some of the other mechanical structures are exposed to injury, and in some instances the walls of the chambers of the locks have been injured by the action of frost upon the banks.

"The Rockville reservoir has received considerable injury from freshets. The waste way to discharge the surplus water, has been undermined and entirely destroyed. Measures have been adopted to protect the reservoir, as far as the means at the disposal of the commissioners will allow.

"The timber and plank procured for the mechanical structures on this canal, has also been protected as far as practicable. But with every care that can be bestowed on these materials, they are rapidly going to decay.

"Only a small amount of materials have been used or sold on this canal, as provided for by the act, chapter 278, laws of 1844, as they are mostly situated at too great a distance from market, or from any navigable canal, to allow of their transportation and sale."

ENLARGEMENT OF THE MORRIS CANAL.

We propose briefly to discuss the prospects of this undertaking, not on account of its own importance, though that is by no means slight, but because it offers an apt and very timely illustration of the causes which have produced the failure of nearly every public work in which the merchants of this city have taken any deep interest.

Some few months since it was announced, as a matter of some moment, that a gentleman, the presiding officer of an eastern railway, just emerging from its difficulties, had been chosen president of the company which had effected the purchase of the Morris canal. It was also—if not directly stated—at least very broadly intimated, that the better standing of the stock of the above railway was mainly due to the exertions of this gentleman; therefore it was at once concluded, that a similar happy result must attend his efforts in the case of the Morris canal. Now the two cases are entirely dissimilar. We avoid names, for the Morris canal is merely chosen as an example; and, we are happy to state, that what we have heard of the abilities of the gentleman alluded to, is favorable. The eastern railway was constructed by an experienced and educated engineer, who had seen much service under Messrs. McNeill and

Whistler; it was a well constructed work and has, we have always understood, been respectably superintended. But a large portion of the funds for the construction of the road, consisted of a loan from the State of Massachusetts—a most singular move by the way—and debts to some amount were incurred. The projection of the railway was premature, hence the income for a few years was comparatively small, and, even when it had materially increased, the interest on the loan, and the payment of debts falling due, absorbed all, leaving nothing for the shareholders. Under such circumstances, there was no remedy but patience, and doubtless some tact was required on the part of the direction, to prevent an explosion among the shareholders. This is their great merit; and it is no trifling one.

Now the difficulties in the way of the Morris canal are of an engineering nature, and the services of a good man of business, though always useful, dwindle into insignificance when we examine the great and complicated engineering considerations which must be thoroughly discussed and mastered, before the enlargement of such a singular canal could be confidently recommended to the shareholders. Yet it was within a very short time of the appointment of the president, that the intention of enlarging the canal was announced all over the country, though we confidently assert, that—supposing the enlargement desirable—our ablest engineers would have required more time to investigate the case, than the present direction has taken to put the work under contract; we might almost say, than the time in which it is to be completed—the end of May, as we find it in the papers, for we have heard of no report, or the appointment of an engineer. The mere financial matters of a well constructed railway in operation, and well superintended, are within the range of the powers of any tolerable man of business; but, before determining on the enlargement of the Morris canal, we should thoroughly understand the coal trade in all its numerous branches and bearings, the cost of transportation should be well examined, and, above all, the capabilities of the present canal, as regards quantity and price, should have been laid before the public in the clearest manner, followed by an analysis of the means by which the doubling of its capacity would render it productive to the shareholders. To do this is no three or four weeks' work; and, without the least disrespect to the mercantile community, we say, that the ablest men of business in the city would find long and close study indispensable to fully comprehend this matter, even when

laid before them in the clearest manner which such an investigation admits of. We go further: the higher order of merchants—unfortunately a very small class—would be the most anxious to secure eminent professional aid, and the greater their abilities, in their own department, the higher the qualifications they would look for in their engineer: those of more limited capacity would select agents of their own calibre, for the rule works both ways to admiration. At the same time there may be some embryo Smeaton or Telford incog., under whose auspices the Morris canal is to become an honor to the country; if so, we would advise the company to introduce him to the public.

Now as the company gives us no data, we must go to work with such materials as we have at hand. The cost of coal at Easton, the western terminus of the Morris canal, is \$2 50 per ton, and, unless it can be carried for \$1 50 thence to New York, the trade will seek other channels. The experience of the Schuylkill canal has demonstrated, that with boats as large as those to be used on the enlarged Morris canal, a total charge of one cent per ton per mile is ruinous. That canal is 108 miles long, and has 616 feet lockage; the Morris canal is 101 miles long, and has 1,600 feet rise, principally overcome by means of inclined planes. The lowest down freight on the Erie canal (363 miles long, with 698 feet lockage,) which yields any return, is two cents per ton per mile, and it is the large quantity of up-freight, at high rates, four to five cents per ton (2,240 lbs.) per mile, which enables them to carry flour in full loads at two cents per ton per mile. Now, assuming that freight can be carried as cheaply on the Morris as on the Erie canal—which no man in his senses can suppose practicable—the cost of coal on board the canal boats at Jersey city will be as follows: \$2 50 at Easton + \$2 00 freight to Jersey city, \$4 50 per ton, at least half a dollar per ton more than the trade can possibly afford. What the actual cost is likely to be, we may perhaps undertake to determine, when we know the capacity of the old canal, the cost per ton per mile, the expense of working the planes, the supply of water and the dimensions of the boats and locks on the old plan; then a report from some engineer of standing of the cost of enlarging the canal, after a close survey of the entire line, showing us clearly the manner in which boats of double the size would cheapen the cost of transportation, so as to render the sum required for the original purchase as well as the sum required for the enlargement judicious expenditures, will furnish us with the necessary data. These data should have

been laid before the shareholders for their sanction, obtaining which, the work would be on a respectable footing. Suppose—to use the grandiloquent language of the day—that some “celebrated financier” had been appointed to the command of Perry’s fleet on lake Erie; the only difference would have been a change in two little pronouns at the end of the commodore’s laconic despatch, which would *then* have read somewhat in this fashion: “We have met the enemy, and—we are their’s.” The duties of a purser do not differ more from those of a “fighting captain,” than do the duties of the presiding officer of a well constructed eastern railway in operation, from those of the engineer who is to lead the Morris canal to success, supposing success to be attainable. We must resume the subject at some other time.

MISCELLANEOUS ITEMS.

Railroad Meetings.—Our citizens are now thoroughly aroused on the subject of the contemplated railroad from Columbus to the Lake—and we think, from present indications, that the work will not only be speedily commenced but prosecuted to completion. Two meetings have recently been held relative to the subject—the first on Thursday evening 19th inst., the second on Tuesday last. Both were very large, the proceedings spirited, and marked by the most perfect unanimity of sentiment. A considerable number of persons addressed the meetings, including some of our most substantial and influential farmers, all of whom appeared fully conscious of the vast importance of the work, and expressed their undoubting confidence of our ability, by a vigorous and united effort, to construct it.—Let the other counties but show the same spirit that Delaware exhibits, and perform their portion of the task, and there can be no doubt as to the speedy accomplishment of the work.—*Olentangy Gazette.*

Another Railroad Open.—On Thursday last, our ears were greeted with the steam whistle from a new quarter, and our eyes, in a short time, with a view of the new engine “*Northampton*” as she came puffing in to our Depot with the first train of cars upon the Northampton and Springfield Railroad, from Cabotville. On Friday at 3½ P. M. was presented the novel and imposing spectacle, henceforth to be a common occurrence, of a train of cars leaving our Depot, for each of the four points of the compass at the same hour. One for the metropolis of New England—one for the capital of the Empire State—one for the capital of Connecticut, and thence to the Commercial emporium of the Union—while another winds its way northward, to meet the coming tide of business along up the valley of the Connecticut—and ultimately we doubt not, of the St. Lawrence, taking in its course the commercial cities of British America.—Already, the consummation has exceeded the most sanguine dreams of enterprise

twelve years ago, and the indomitable spirit of New England is still pushing onward to the achievement of greater triumphs. Ten years now develop more progress than an ancient century.—*Springfield Gazette, March 5.*

Progress of the Railroad.—The laborers commenced work on the depot grounds, in the rear of Pleasant St. on Monday week; and they have made sad havoc with the pleasant places, where “many a time and oft,” a “weary pilgrim” has reclined his tired limbs, of a summer’s afternoon, under the shade of an old tree. The aged are filled with sadness to see the places of their childhood so changed by the “hand of improvement”; but the young are delighted with the novelty.

Hundreds flock daily to see the honest Hibernians ply the nimble shovel. They are as industrious as bees, and they remove the earth with astonishing rapidity. Some fifty horses and carts are on the ground, and men enough to keep them a moving.—*Northampton Gazette.*

Grand Gulf and Port Gibson Railroad.—The Railroad from Grand Gulf to Port Gibson, Miss., is to be finished at last. All the difficulties which have heretofore prevented the completion of this road are now removed, and we learn from the Port Gibson Herald, that the sum required for the purchase of the right of way, amounting to the sum of \$10,000, has been liberally subscribed by the citizens, and the agent of the road has, it is said, gone to Philadelphia to complete the arrangement by which the necessary funds (some \$10,000) will be raised for finishing the railroad.—*Ledger.*

To the Michigan Legislature notice has been given of a joint resolution authorizing the Governor to receive from individuals or corporations propositions for purchasing the works of internal improvement belonging to the state, and report the result to the next legislature.

Within a few days past a Bill has passed both branches of the Pennsylvania Legislature for the incorporation of the Wisconsin Canal Company. This Canal is one of the unfinished works of the State, although it was about four fifths completed some three or four years ago; and the object of the present legislation is to induce its completion by individuals, who will be entitled to hold it on advantageous terms. A moderate outlay will suffice to bring it into operation. The Canal will connect the State Canal at Duncan’s Island with the western terminus of the Lyken’s Valley Railroad, which latter penetrates the first or lower great Anthracite Coal field of Pennsylvania.

The Bear Mountain Railroad, which was noticed in this paper some two or three months since as being under contract, penetrates the same coal field at another point, and has its western terminus on the Pennsylvania State Canal, at a point about eight miles above Harrisburg. These two works will probably be in operation in the Spring of 1846, and as the exhaustless coal regions

which they will cause to be opened are so much nearer to tide water than any other sources of supply, their operations must rise rapidly in extent and importance. The most careful calculations of all the items of cost, including mine rent, mining, transportation, &c. show conclusively that coal of the best quality can be furnished at Havre de Grace through these works and the Pennsylvania and Tide Water Canals, at the low rate of two dollars and fifty cents per ton. At this price it is manifest that the demand will always keep pace with the supply, and we should not be surprised to see the coal trade of the Susquehanna region rising to some two or three hundred thousand tons per annum in the course of the next three or four years.—*Baltimore American.*

The Schuylkill Navigation Company have determined to let the water into the canal and open it for trade on Tuesday next, the 10th inst.

The Post says it was announced to the Railroad Committee, at the hearing Tuesday afternoon, by the President of the Eastern Railroad company, that a reduction of fares on that road would be made about April 1st, and the rates thereafter would be 25 cents to Lynn, 40 cts to Salem, \$1 to Newburyport, with a proportionate reduction at other way stations. If the Maine road consents thereto, the fare from Portsmouth to Boston will then be \$1.50.

We learn that the citizens of Canandaigua are taking into consideration the construction of a railroad from that place, along the west side of the Lake, to Bath, on the Chautauque river, thence down that river to unite with the Erie Railroad at its mouth. The distance is about sixty miles, and the route favorable; and passing through a populous and rich agricultural section of the State.

The Aqueduct.—We paid a visit last week to the new aqueduct, now being constructed by Mr. J. A. Roebling, across the Alleghany. Since the commencement of the work, Mr. Roebling has laboured with the utmost perseverance, day and night, to complete it within the time specified in his contract—the first of April. The suspension ropes, which extend from pier to pier in the form of an inverted arch, are to consist of seven strands of wire, each strand being about three inches in diameter. Four of these strands are already finished across the entire length of the structure, and the fifth will be completed to-day. The ropes will then be wrapped in annealed wire, (No. 14) which will render it one solid mass, and as each individual wire is varnished before it is put across, and as the whole will be painted when finished and wrapped, it will be impervious to water and consequently not liable to be weakened or impaired by the weather. On these two immense wire ropes the structure is to be suspended.—But this is not the only reliance for strength. The trunk is to be constructed from pier to pier—the sides being of solid lattice work—that is, strong beams placed in this form, XXX. The beams are to be placed contiguous to

each other for greater strength, so that when finished the trunk alone, without the wire ropes, will be a firm and strong structure, capable, not only of sustaining its own weight, but, also, of bearing up as much additional work as a lattice work bridge would do. In effect, the trunk is a lattice work bridge without arches, like those across the Beaver river. The ropes being suspended across strong stone towers placed upon the piers, are in fact inverted arches, capable of sustaining more than double the additional weight which the letting in of the water would place upon the trunk,—the trunk itself is an independent, strong and immovable structure: so that when finished, the aqueduct will not be liable to be moved, either from the swell of water or the effect of storms.

The wires are carried across the river from one pier to another, by a wheel which traverses the whole distance upon ropes unwinding the wire from the reels as it goes. The ropes are moved by horse power.

The splices of the wire are made by placing the two ends together and winding them with fine annealed wire, and it is done so strongly, that sufficient force will break the wire, but will not affect the splice. We saw this satisfactorily tested.

When finished, the large ropes are to be wrapped by machinery—the invention, we believe, of Mr. Roebling himself, which will enable him to do it efficiently and expeditiously. Labor and energy on the part of the contractor, have done every thing in his power to have the Aqueduct finished by the first of April, and if it is not completed by that time, which is doubtful, as the whole trunk is yet to be put up, he is confident of being able to do it within a short time after.

The work is one which will be a credit not only to Mr. Roebling, but to our city, composed as it is of the manufactures of our unsurpassed mechanics.—*Pittsburg Chronicle*.

Maryland Coal.—We notice that at the new wharf of the Maryland and New York Iron and Coal Co., Canton, the bark Daniel Webster is taking in a cargo of 400 tons of Coal from the Mount Savage mines, destined for Port au Prince. It is, we learn, designed for the use of the French Naval service.—The investigations made at Washington, in reference to the comparative value of the different coals, in our country, particularly for steam purposes, it will be remembered resulted in giving the Maryland Coal the preference. Hence this demand for foreign use. The time will come when Baltimore will be the great Coal mart of the Union.—*Balt. Pat., Monday*.

The following article from *Herapath* will be perused with interest by our readers generally, and more particularly by those in Massachusetts, where they are about establishing a Board somewhat on the English plan. It appears to be generally conceded, that something or other must be done to

prevent the public from being drawn into ruinous schemes by plausible adventurers; also to make the railways yield the accommodations which the community has a right to expect. We are not prepared to discuss this question now, but it strikes us, that the difficulty in the way of filling a Railway Board with competent members will be much greater here than in Europe. At any rate, we of New York know that such men as the Stephensons, Rennies, &c., would never rise above the rank of assistants on our State works, where liberal acquirements, a high sense of honor, and success in civil engineering, would present insuperable bars to their advancement. In Massachusetts, the system will work better than in New York, and, *a fortiori*, better than in Pennsylvania, an account of the more advanced state of society which brings men of a higher grade into public life. Many entertain the idea that the true plan is, to pass some general law under which individuals may associate and construct railways wherever they please, leaving it to the common sense of the public to look after their own interests as shareholders, and trusting to the spirit of private enterprise to prevent imposition by wholesome rivalry. We confess our leaning to the latter plan, but unfortunately it is impracticable in New York, as it conflicts with the purity of our republican canal institutions in a manner not to be tolerated in the Empire State.

BOARD OF TRADE AND THE RAILWAYS.

Many speculations have been afloat respecting the course the Board of Trade would pursue with the railways. Some expected it would take a minute view of all the circumstances of the railways, and others that it would merely give an opinion of the fitness or unfitness of certain lines in an engineering point of view, and the ability of the parties to carry them out as expressed by its various notices. Tuesday's *Gazette*, has settled the matter to a certain extent, but still left much in darkness. It has declared which of certain lines it will report in favour of to Parliament, and which against, but it has left us no clue as to the nature and character of its intended reports to the legislature. According to the statement of Captain Laws at Brighouse, Lord Dalhousie has determined to report decidedly on every case. If this "decidedly" means fully and specifically, the Board will have enough to do to steer clear of error, in the numerous schemes before it and from the impossibility of its obtaining that information necessary for such a report within any reasonable time. We will mention one case out of several which happened to Mr. Herapath while he was out. When he went to Leeds he was so fully, as he thought, satisfied that he could, with his previous information, easily get over all that was then to

be done, that he made his arrangements to leave Leeds in three days. However, such he found to be the difficulty in obtaining information and weighing that which he received, and in examining the plans, sections, and part of the ground, and inquiring into the nature and character of the trade of the district, that though he exerted himself to an extent which overpowered his physical abilities, it cost him sixteen instead of three days before he could leave Leeds, and then a great deal was left unfinished. The same happened at Manchester, where he was a much longer time, and at Newcastle and York. He has been heard to say that twelve months' incessant and undivided attention at the several places together, would not be enough to enable him to report satisfactorily to himself on the schemes now out. If, then, such be the labour required by a man of most active habits and intimately acquainted with all the principles and bearings of railways from their very origin, what time must be required by gentleman almost fresh to the subject, and who have not half, and, perhaps, we may say, not a tenth the facilities of getting and eliciting true information that he has?

Our opinion therefore, is that the Board will not venture to report in detail on the schemes brought before it. If it should, it will be at a great risk to its own character, and the interest of the public. No man, as was observed in two very able articles lately in the *"Times,"* could come to a correct conclusion even on the engineering merits of a line, without a personal inspection of the ground, with the plan and section in his hand. But when the various ramifications of trade, the bearings of new schemes on existing lines, the requirements of peculiar localities come to be considered, it is extremely difficult, and we think impossible, for any body of men, however industrious and talented, to afford an opinion worth anything, unless by a cool and deliberate inspection of the locality, and making themselves masters of the subject in all its details on the spot. If any one doubts this, let him look at the account of the West Riding, &c. Railways, and the trade of the district given by Mr. Herapath, in our No. for Dec. 7th. No man can read this without being struck with the great care and circumspection, and long and laborious investigation demanded, to decide correctly, and to do justice between railways and the district they have to serve.

Railways are not like common roads, of a moderate cost and accessible at all points, in which, if an error is committed, like a silver or gold trinket, they will be worth something when of no use for their original purpose. Very different indeed are railways. When railways are made, it is at a great expense. They can only be approached at points distant from each other, and are comparatively useless to all intermediate localities. Should there be an error in their construction or position, they become like the iron castings of a great and expensive machine, useless and valueless, and the cost

of construction is just so much money wasted.

Neither is the mischief confined to a simple waste of money, however great it may be, nor to a short period. A railway once made is a fixture, and, if badly laid out, perpetuates its injury. For though another may be constructed, it is two to one if the desire of keeping as far off as possible, and the commendable principle of not allowing existing lines to be unnecessarily interfered with, do not drive it as much the other side of the true course as the existing one is on this.

To those who imagine the decision on railway subjects is easy, let him take up the Churnet Valley case, and he will find it difficult to say anything on one side, to which an equally good set off may not be made on the other. That the Churnet is a very good line no man doubts; that it is the line which ought to have been made, and would have been made, if it had not been for the blundering conduct of the government officer, is equally certain, but the difficulty is, since the Grand Junction and Manchester and Birmingham are in existence, to say whether this very good and proper line shall now be made or not. If one says that it ought not, he is met by the question, "Shall all that large and populous district between the Derby Junction, and Grand Junction, and Manchester and Birmingham railways be left unprovided with a railway, and the 400,000 inhabitants of Manchester, the capital of the manufacturing districts, be sent for ever miles further round, to support the monopoly of an ill-judged line?" If on the other hand, he contends that it ought to be made, he is met directly by the following argument, "Is there not already a very good railway communication with Manchester by lines which have done the public good service? If you destroy railway property thus, by competing lines, who will invest their money in such property?—and what will be the consequence, but an abandonment of schemes highly advantageous to the country?"

Now who would hastily decide in the face of such conflicting and powerful arguments? We are in favour of the Churnet line, but we candidly admit, that the arguments on the other side are very weighty, but not so much so, as those given by us in our last, in favour of the Churnet.

The Brighton is another case of difficulty, though not equal to the former. A line is made through the recommendation of the Government officer, which ought never to have been, and the question is, whether the one originally laid out, ought now to be granted. To our mind it ought not. The public, we admit, would have been carried via Shoreham, on a much better line, and more comfortably, and for the benefit of commerce, Shoreham, on account of its harbour, not Brighton, is the proper place to reach first. The voice of reason was, however, not heard or not listened to, and the present Brighton line was made at an enormous expense. By this line, the Brighton public is carried in a shorter time than it

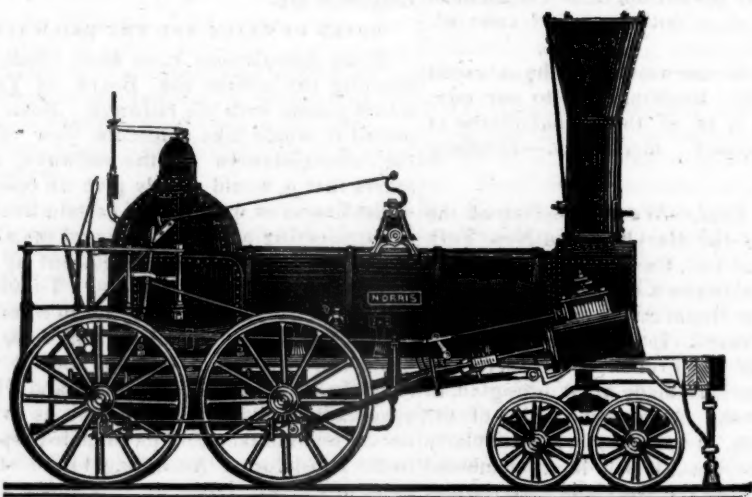
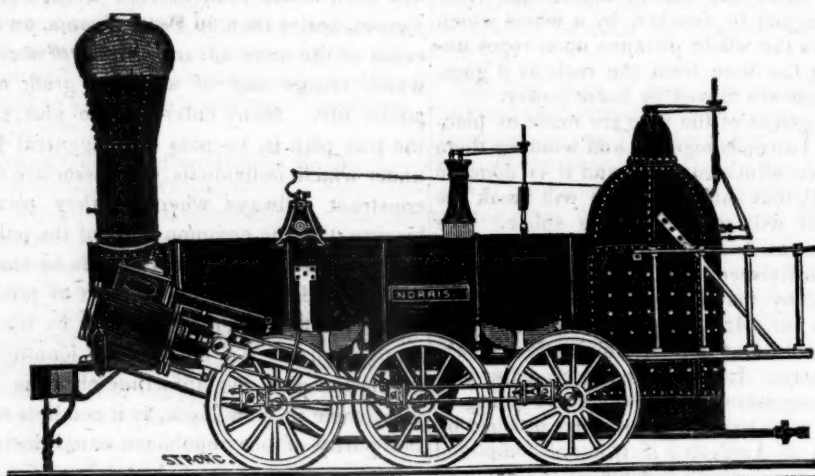
could by the other, and, there is every reason to believe, at the same expense. So that the public would gain nothing except in comfort by a new line, which cannot be put in competition with the sacrifice of so large a sum of money.

The cases we have mentioned show the very great care that is necessary in the decisions of the Board of Trade. We do not adduce them to deter the Board from the free exercise of its power, nor to prejudice the public; but if possible to increase its care and caution to avoid error, to which the very best of us are so liable. An error in the Board's decision will be a matter of no ordinary importance. Government will, no

doubt, support it by the whole weight of its influence for the sake of the patronage, and Parliament will hence sanction the error, unless very glaring. What will be the consequence? Why work will be done which must have to be undone, or the public and individuals suffer by it *ad infinitum*, and hundreds of thousands, perhaps millions, spent in a mischievous rather than a beneficial object. Rash and daring decisions are, therefore, to be deprecated, and however desirable it may be for promoters of schemes to know their fate as early as possible, we would rather see the Board of Trade take time to digest and mature its opinions than to adopt error.

NORRIS' LOCOMOTIVE WORKS

BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " " × 24 " "
"	3,	14½	" " " × 20 " "
"	4,	12½	" " " × 20 " "
"	5,	11½	" " " × 20 " "
"	6,	10½	" " " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

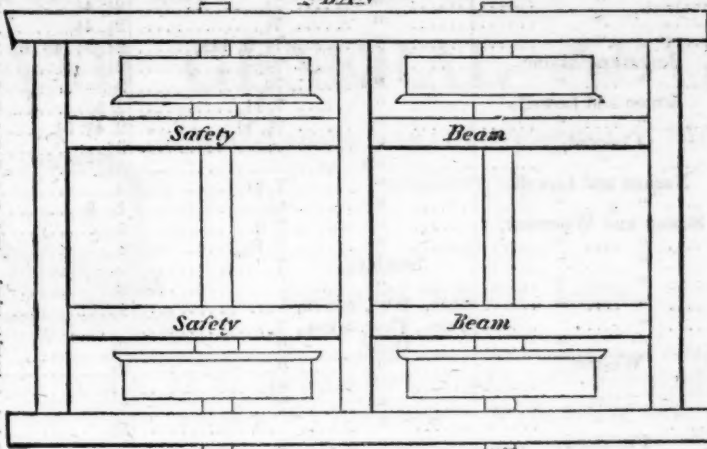
In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

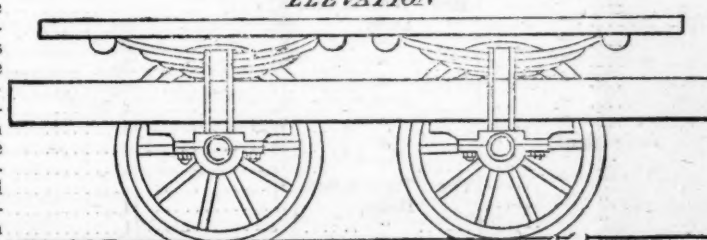
GEORGE CRAIG, Superintendent,

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.

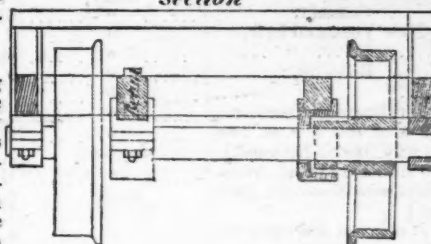
PLAN



ELEVATION



Section



W. R. CASEY, CIVIL ENGINEER, NO. 23. Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, SURVEYOR and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.

Boston, { Col. James F. Baldwin, Civil Engineer.
Col. J. M. Fessenden, "
Wm. Parker, Esq., Engineer and Superintendent
Boston and Worcester railroad. ja45

RAILROAD IRON AND FIXTURES. THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,

ja45 21 Broad st., N. York.
SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,

ja5a3 Albany Iron and Nail Works, Troy, N. Y.

LONG ISLAND RAILROAD COMPANY.

Trains run as follows, commencing November 1st, 1844:

Leave Brooklyn at 8 a. m. (7½ New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor.

Leave Brooklyn at 9½ a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places.

Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.

Leave Greenport for Brooklyn, Boston Train, at 1 p. m. or on the arrival of the steamer, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale.

Leave Greenport at 9½ a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays.

Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1½ p. m.

ON SUNDAYS.

Leave Brooklyn for Hicksville and intermediate places, at 9½ a. m.

Leave Brooklyn at 4½ p. m. for Jamaica.

Leave Hicksville at 2½ p. m. for Brooklyn.

Leave Jamaica at 8 a. m. for Brooklyn.

Leave Jamaica at 3½ p. m. for Brooklyn. ja1

BOSTON AND PROVIDENCE RAILROAD.

PASSENGER NOTICE.—Winter Arrangement.—To commence Monday, November 4.

On and after Monday, Nov. 4, the Passenger Trains will run as follows:

For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday.

For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday.

Boston, Providence, Taunton, New Bedford and Way Trains.

Leave Boston at 8 A. M., and 3½ P. M.; and Providence at 8 A. M. and 3½ P. M.

" Taunton at 8½ A. M. and 3½ P. M.

" New Bedford at 7½ A. M. and 2½ P. M.

Dedham Trains.

Leave Boston at 9 A. M.—3 P. M., 5½ P. M.

Dedham at 7 50 A. M., 10½ A. M., 4½ P. M.

All baggage is at the risk of the owners thereof.

WM. RAYMOND LEE, Sup't.

FITCHBURG RAILROAD.

OPEN TO ACTON.

Passenger Trains will run as follows:

Leave Charlestown at 8 A. M. and 1 and 4 P. M. Leave West Acton at 7 30 a. m.

10 51 A. M., and 5 6 P. M.

Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchendon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swanswy, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt.

For further information, apply to THOMAS A. STAPLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge.

Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. ja1

S. M. FELTON, Engineer.

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

	DAILY				SUNDAY	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.						
For Newark.....	9, 11, 12.....		2, 3, 4 3-4, 6, 7 1-2		9.....	4 3-4
" Elizabethtown.....	9, 11.....		2, 3, 4 3-4, 6.....			
" Rahway.....	9, 11.....		3, 4 3-4, 6.....			
" New Brunswick.....	9.....		3, 4 3-4.....			
Leave New Brunswick.....	6, 7 1-2, 11 1-2.....		8 3-4.....		11 1-2	8 1-2
Rahway.....	6 3-4, 7, 8 1-4, 12.....		4 3-4, 9 1-4.....			
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12		3 1-2, 5.....			
Newark.....	7 1-2, 8 1-4, 9, 11.....		11 1-2, 4, 5 1-2, 7, 9 3-4		11 3-4	9 3-4
For New York.						

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	23 1-2	50	16 3-4	50	11 3-4	37 1-2		

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE.
Boston	Portland	Eastern,	Daily,	7 1/2	2 1/2	106	\$3 00	
"	Portsmouth	"	"	"	7 1/2	2 1/2	54	2 00
"	Newburyport	"	"	"	7 1/2	2 1/2	35	1 25
"	Salem	"	"	"	7 1/2, 9, 11 1/2	2 1/2, 3 1/2, 4 1/2, 6	14	50
"	Portland	Boston and Maine,	"	"	7 1/2	2 1/2	109	3 00
Portland	Boston	"	"	"	7 1/2	3	109	3 00
Boston	Lowell	Boston and Lowell,	"	"	7 11	2 5	26	75
Lowell	Boston	"	"	"	7 11	2 4 1/2, 5 1/2	26	75
Boston	Concord	Concord,	"	"	"	3 1/2	76	2 00
Concord	Boston	"	"	"	"	3 1/2	76	2 00
Boston	Nashua	Nashua and Lowell,	"	"	7 11	5	41	
Nashua	Boston	"	"	"	6 1/2	1 1/2, 5	41	
Boston	Worcester	Boston and Worcester,	"	"	7 9	2 1/2	44	1 25
Worcester	Boston	"	"	"	7 10	6	44	1 25
Boston	Worcester	"	"	Sundays,	7			
Boston	New York via Norwich	"	"	Mon., Wed. & Fri.,		4		
"	" " L. Island railroad	"	"	Tues., Thur. & Sat.,	7			
"	" " New Haven	"	"	Daily,	9	2 1/2		
"	Albany	Western,	"	"	9	2 1/2	200	6 00
Albany	Boston	"	"	"	8 1/2	1 1/2	200	6 00
Springfield	Boston and Albany	"	"	"	7	3		
Boston	New York via New Haven	"	"	"	"	2 1/2		
Charlestown	West Acton	Fitchburg,	"	"	8	1 4 1/2		
West Acton	Charlestown	"	"	"	7 1/2, 10 1/2	5		
Boston	New York, via Sound steamboat	Boston and Providence,	"	Tues., Thur. & Sat.,		4		
"	" " L. Island railroad	"	"	Mon., Wed. & Fri.,	8			
Providence	Providence	"	"	Daily,	8	3 1/2	41	1 50
Taunton	"	"	"	"	8	3 1/2	41	1 50
New Bedford	Boston	"	"	"	8 1/2	3 1/2		
Boston	Dedham	"	"	"	7 1/2	2 1/2		
Dedham	Boston	"	"	"	9	3 5 1/2		
New York	Greenport	Long Island,	"	"	7 1/2, 10 1/2	4 1/2		
Brooklyn	Hicksville & intermediate places	"	"	"	7 1/2		95	2 25
"	Greenport	"	"	"	9 1/2		26	56 1/2
"	Hicksville, (Satur'd'y to Suffolk)	"	"	Tues., Thur. & Sat.,	9 1/2		95	2 25
Greenport	Brooklyn, (Boston train)	"	"	Daily,		4	26	56 1/2
"	" (accommodation do.)	"	"	Mon., Wed. & Fri.,		1	95	2 25
Hicksville	" & intermediate places	"	"	Daily,	7	1 1/2	26	56 1/2
New York	Albany & Boston via N. Haven	Steamer,	"	"	6 1/2			5 00
"	Middletown	New York and Erie,	"	"	8, 3		53	
Middletown	New York	"	"	"	6 1/2	3 1/2	53	
Philadelphia	Pottsville	Reading,	"	"	9		94	3 50
Pottsville	Philadelphia	"	"	"	9		94	3 50
New York	Newark	N. J. railroad and trans. co.,	"	"	9, 11, 12	2, 3, 4 1/2, 6, 7 1/2	9 1/2	25
Newark	New York	[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	"	7 1/2, 8 1/2, 9, 11	1 1/2, 4, 5 1/2, 7, 9 1/2	9 1/2	25
"	"	[9 A. M. and 4 1/2 P. M., trains, connect with Somerville Railroad.]	Sundays,	"	9	4 1/2	9 1/2	25
New York	Newark	"	"	Daily,	11 1/2	9 1/2	9 1/2	25
Elizabethtown	New York	"	"	"	9, 11	2, 3 1/2, 4 1/2, 6	14 1/2	31 1/2
New York	Rahway	N. J. railroad and trans. co.,	"	"	7 1/2, 8 1/2, 10 1/2, 12	3 1/2, 5	14 1/2	31 1/2
Rahway	New York	"	"	"	9, 11	3, 4 1/2, 6	19 1/2	31 1/2
New York	New Brunswick	"	"	"	6 1/2, 7, 8 1/2, 12	4 1/2, 9 1/2	19 1/2	31 1/2
New Brunswick	New York	"	"	"	9	3, 4 1/2	31 1/2	50
"	"	"	"	"	6, 7 1/2, 11 1/2	8 1/2	31 1/2	50
New York	New Brunswick	"	"	Sundays,	11 1/2	8 1/2	31 1/2	50
Philadelphia	New York	Camden and Amboy,	"	Daily,	9	4 1/2	31 1/2	50
New York	Philadelphia	"	"	"	7		91	3 00
Philadelphia	Bristol	Philadelphia and Trenton,	"	"	5 1/2		91	3 00
Bristol	Philadelphia	"	"	"	9		30	75
Philadelphia	Baltimore	Philad. Wil. and Baltimore,	"	"	"		30	75
Baltimore	Philadelphia	"	"	"	8	4	93	
"	Washington	Baltimore and Washington,	"	"	9	8	93	
Washington	Baltimore	"	"	"	9	5, 11 1/2	41	2 50
Baltimore	Cumberland and inter. places	Baltimore and Ohio,	"	"	6	5 1/2	41	2 50
"	Frederick	"	"	"	7 1/2			
Cumberland	Baltimore	"	"	"	"			
Hancock	"	"	"	"	8	4		
Martinsburg	"	"	"	"	10 1/2			
Harper's Ferry	"	"	"	"	11 1/2			
Frederick	"	"	"	"	"			
"	"	"	"	"	"	12 1/2		
Ellicott's Mills	"	"	"	Sundays,	8			
Richmond	Petersburg	Richmond and Petersburg,	Daily,	7 1/2, 12	4 1/2			
Petersburg	Richmond	"	"	"	10 1/2	1 1/2		
Albany	Schenectady	Mohawk and Hudson,	"	"	5 1/2			
Schenectady	Albany	"	"	"	8	5 1/2		
Albany	Saratoga	"	"	"	9	3 1/2		
Saratoga	Albany	"	"	"	7 1/2	2		
Troy	Saratoga	Troy and Saratoga,	"	"	7 1/2	12 1/2, 5		
Saratoga	Troy	"	"	"	3 1/2			
Auburn	Rochester	Auburn and Rochester,	"	"	7 1/2			
Rochester	Auburn	"	"	"	8 1/2			
"	Buffalo	Rochester and Buffalo,	"	"	8	3		
Buffalo	Rochester	"	"	"	"	3		
"	Falls	Buffalo and Falls,	"	"	"			
Falls	Buffalo	"	"	"	9			
Buffalo	Albany	Albany and Buffalo	"	"	8 1/2	1 1/2		